

7: Jashes M, Gonzalez M, Lopez-Lastra M, De Clercq E, Sandino A.

Related Arti

Inhibitors of infectious pancreatic necrosis virus (IPNV) replication.

Antiviral Res. 1996 Mar;29(2-3):309-12.

PMID: 8739609; UI: 96316007

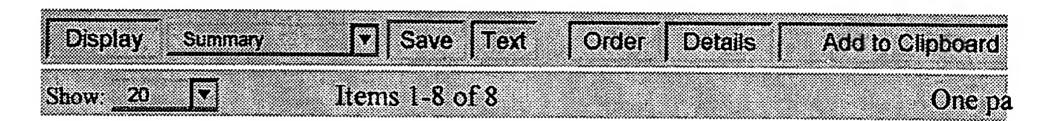
8: Ganga MA, Gonzalez MP, Lopez-Lastra M, Sandino AM.

Related Arti

Polyacrylamide gel electrophoresis of viral genomic RNA as a diagnostic meth for infectious pancreatic necrosis virus detection.

J Virol Methods. 1994 Dec;50(1-3):227-36.

PMID: 7714046; UI: 95229763

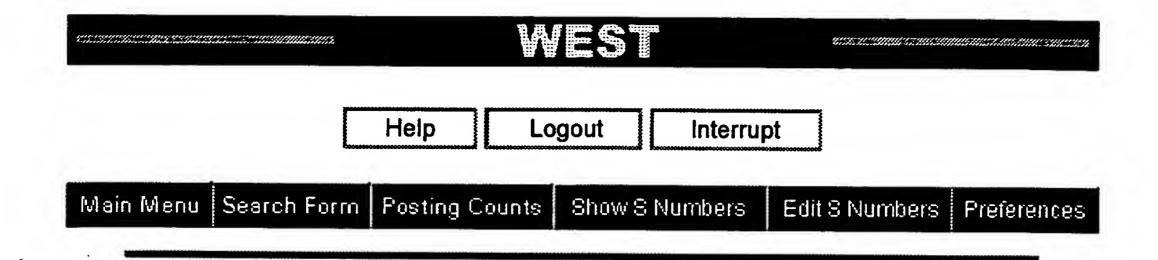


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#### Search Results -

Term	Documents
UNTRANSLATED.DWPI,TDBD,EPAB,JPAB,USPT.	6523
UNTRANSLATEDS	0
LEADER.DWPI,TDBD,EPAB,JPAB,USPT.	24300
LEADERS.DWPI,TDBD,EPAB,JPAB,USPT.	2816
(5 AND (UNTRANSLATED ADJ LEADER)).USPT,JPAB,EPAB,DWPI,TDBD.	12

US Patents Full-Text Database JPO Abstracts Database EPO Abstracts Database **Derwent World Patents Index** Database: IEM Technical Disclosure Bulletins

	L5	and	(untranslated			]	
Refine Search:	*******************************	************		***************************************	<b> </b>		Clear

### Search History

Today's Date: 8/15/2000

DB Name	<u>Query</u>	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI,TDBD	L5 and (untranslated leader)	12	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	L3 and (REV or MSV or MHV or MEV or FMOV or AMLV or MEELV or SFFV or RASV or FLV or FSV or EFLV or SSV or GALV or BAEV)	137	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	L3 and ((type C) adj retrovirus)	4	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	L1 and L2	1058	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	IRES	4547	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	vector or (retroviral vector)	165719	<u>L1</u>

ACCES TO STATE OF THE STATE OF

#### **Generate Collection**

#### Search Results - Record(s) 1 through 4 of 4 returned.

1. Document ID: US 6017761 A

L4: Entry 1 of 4 File: USPT

Jan 25, 2000

US-PAT-NO: 6017761

DOCUMENT-IDENTIFIER: US 6017761 A

TITLE: Method for obtaining retroviral packaging cell lines producing high transducing efficiency retroviral supernatant

Classification Date Reference Claims KWC Drawu Desc Image Title Citation Front Review

2. Document ID: US 6013517 A

L4: Entry 2 of 4

File: USPT

Jan 11, 2000

US-PAT-NO: 6013517

DOCUMENT-IDENTIFIER: US 6013517 A TITLE: Crossless retroviral vectors

Citation Front Review Classification Date Reference Claims KWIC Title Drawu Desc

3. Document ID: US 5932467 A

L4: Entry 3 of 4 File: USPT Aug 3, 1999

US-PAT-NO: 5932467

DOCUMENT-IDENTIFIER: US 5932467 A

TITLE: Retroviral vectors pseudotyped with SRV-3 envelope

glycoprotein sequences

Full Title Citation Front Review Classification Date Reference Claims KMC Draw Desc Image

4. Document ID: EP 918875 A1, FR 2762615 A1, WO 9849334 A1, AU 9875365 A

L4: Entry 4 of 4

File: DWPI

Jun 2, 1999

DERWENT-ACC-NO: 1999-037487

DERWENT-WEEK: 199926

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TITLE: Expression <u>vectors</u> containing <u>IRES</u> and/or encapsidation enhancer - derived from <u>type C retrovirus</u> other than FMLV and

MoMLV

#### **Generate Collection**

Term	Documents
TYPE.DWPI,TDBD,EPAB,JPAB,USPT.	3089325
TYPES.DWPI,TDBD,EPAB,JPAB,USPT.	793606
C.DWPI,TDBD,EPAB,JPAB,USPT.	10322273
CS.DWPI,TDBD,EPAB,JPAB,USPT.	189339
RETROVIRUS.DWPI,TDBD,EPAB,JPAB,USPT.	6823
RETROVIRUSES.DWPI,TDBD,EPAB,JPAB,USPT.	6470
(3 AND ((TYPE ADJ C) ADJ RETROVIRUS)).USPT,JPAB,EPAB,DWPI,TDBD.	4

Display 10 Documents, starting with Document: 4

> Display Format: TI **Change Format**

### Status: Path 1 of [Dialog Information Services via Modem] ### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog) Trying 3106900061...Open DIALOG INFORMATION SERVICES PLEASE LOGON: \*\*\*\*\*\* HHHHHHHH SSSSSSSS? ### Status: Signing onto Dialog \*\*\*\* ENTER PASSWORD: \*\*\*\*\*\* HHHHHHH SSSSSSS? \*\*\*\*\*\* Welcome to DIALOG ### Status: Connected Dialog level 00.07.20D Last logoff: 08aug00 15:17:50 Logon file001 15aug00 09:53:18 \*\*\* ANNOUNCEMENT \*\*\* NEW FILE RELEASED \*\*\*Prous Science Daily Essentials (Files 458, 459) \*\*\*WIPO/PCT Patents Fulltext (File 349) UPDATING RESUMED \*\*\*Datamonitor Market Research (File 761) \*\*\*Dissertation Abstracts Online (File 35) \*\*\*GPO Monthly Catalog (File 66) \*\*\*Bridge World Markets News (File 609,809) \*\*\*Fort Worth Star-Telegram (File 427) RELOADED \*\*\*Canadian Business Directory (File 533) \*\*\*D&B International Dun's Market Identifiers (File 518) \*\*\*D&B European Dun's Market Identifiers (File 521) \*\*\*Kompass Canada (File 594) \*\*\*CANCERLIT (File 159) >>>Get immediate news with Dialog's First Release news service. First Release updates major newswire databases within 15 minutes of transmission over the wire. First Release provides full Dialog searchability and full-text features. To search First Release files in OneSearch simply BEGIN FIRST for coverage from Dialog's broad spectrum of news wires. >>> Enter BEGIN HOMEBASE for Dialog Announcements <<< of new databases, price changes, etc. KWIC is set to 50. HILIGHT set on as '\*' 1:ERIC 1966-2000/Jul 26 File (c) format only 2000 The Dialog Corporation Set Items Description ?b 155,5, 73 15aug00 09:53:30 User259876 Session D100.1 \$0.40 0.115 DialUnits File1 \$0.40 Estimated cost File1 \$0.01 TYMNET

\$0.41 Estimated cost this search

\$0.41 Estimated total session cost 0.115 DialUnits

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SYSTEM:OS - DIALOG OneSearch
 File 155:MEDLINE(R) 1966-2000/Oct W1
         (c) format only 2000 Dialog Corporation
        5:Biosis Previews (R) 1969-2000/Aug W2
  File
        (c) 2000 BIOSIS
 File 73:EMBASE 1974-2000/Jul W3
        (c) 2000 Elsevier Science B.V.
*File 73: There is no data missing. UDs are being adjusted
to reflect the current months data.
     Set Items Description
?s (type (w) C (w) retrovirus)
        1602512 TYPE
        2034818 C
          29982 RETROVIRUS
            483 (TYPE (W) C (W) RETROVIRUS)
     S1
?s (IRES or (internal (w) ribosome (w) entry (w) site))
           1313 IRES
         807888 INTERNAL
          42380 RIBOSOME
         115032 ENTRY
         866074 SITE
             790 INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE
           1616 (IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
      S2
?s (vector? or (retroviral (w) vector?))
         212651 VECTOR?
          26432 RETROVIRAL
         212651 VECTOR?
           8542 RETROVIRAL (W) VECTOR?
      S3 212651 (VECTOR? OR (RETROVIRAL (W) VECTOR?))
?s s1 and s2 and s3
             483 S1
           1616 S2
          212651 S3
              0 S1 AND S2 AND S3
      S4
?s s1 and s2
             483 S1
            1616 S2
             0 S1 AND S2
?s s1 and s3
             483 S1
         212651 S3
             14 S1 AND S3
      S6
?rd
...completed examining records
              6 RD (unique items)
      S7
?t s7/3, k/all
            (Item 1 from file: 155)
 7/3, K/1
DIALOG(R) File 155: MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.
           98001324
09303800
 Identification of envelope protein residues required for the expanded
host range of 10A1 murine leukemia virus.
  Han JY; Cannon PM; Lai KM; Zhao Y; Eiden MV; Anderson WF
  Gene Therapy Laboratories, Norris Cancer Center, University of Southern
California School of Medicine, Los Angeles 90033, USA.
  Journal of virology (UNITED STATES) Nov 1997, 71 (11) p8103-8, ISSN
           Journal Code: KCV
0022-538X
  Contract/Grant No.: CA59318-04, CA, NCI
  Languages: ENGLISH
  Document type: JOURNAL ARTICLE
```

The 10Al murine leukemia virus (MuLV) is a recombinant \*type\* \*C\* \*retrovirus\* isolated from a mouse infected with amphotropic MuLV (A-MuLV). 10Al and A-MuLV have 91% amino acid identity in their envelope proteins yet display different host ranges. For example, CHO-Kl cells are resistant to A-MuLV but susceptible to infection by 10Al. We have now determined that \*retroviral\* \*vectors\* bearing altered A-MuLV envelope proteins containing 10Al-derived residues at positions 71 (A71G), 74 (Q74K), and 139 (V139M) transduce CHO-Kl cells at efficiencies similar to those achieved with 10Al enveloped \*vectors\*. A-MuLV enveloped \*retroviral\* \*vectors\* with these three 10Al residues were also able to transduce A-MuLV-infected NIH 3T3 cells. This observation is consistent with the ability of \*vectors\* bearing this altered A-MuLV envelope protein to recognize the 10Al-specific receptor present on NIH 3T3 cells and supports the possibility that residues at...

7/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

08434812 96042132

A novel mechanism of retrovirus inactivation in human serum mediated by anti-alpha-galactosyl natural antibody.

Rother RP; Fodor WL; Springhorn JP; Birks CW; Setter E; Sandrin MS; Squinto SP; Rollins SA

Department of Molecular Development, Alexion Pharmaceuticals Inc., New Haven, Connecticut 06511, USA.

Journal of experimental medicine (UNITED STATES) Nov 1 1995, 182 (5) p1345-55, ISSN 0022-1007 Journal Code: I2V

Languages: ENGLISH

Document type: JOURNAL ARTICLE

... to the viral envelope protein p15E, which leads to classical pathway-mediated virolysis in human serum. Here we report a novel mechanism of complement-mediated \*type\* \*C\* \*retrovirus\* inactivation that is initiated by the binding of "natural antibody" [Ab] (anti-alpha-galactosyl Ab) to the carbohydrate epitope Gal alpha 1-3Gal beta 1...

... express the alpha-galactosyl epitope to humans and to other Old World primates. Further, these data provide a mechanism for the generation of complement-resistant \*retroviral\* \*vectors\* for in vivo gene therapy applications where exposure to human complement is unavoidable.

7/3,K/3 (Item 3 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

08254496 95190970

Characterization of an infectious molecular clone of human T-cell leukemia virus type I.

Zhao TM; Robinson MA; Bowers FS; Kindt TJ

Laboratory of Immunogenetics, NIAID Twinbrook II Facility, Rockville, Maryland 20852.

Journal of virology (UNITED STATES) Apr 1995, 69 (4) p2024-30, ISSN 0022-538X Journal Code: KCV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

... the env gene. A genomic DNA fragment containing the intact HTLV-I provirus was cloned into bacteriophage lambda (K30 phi) and subcloned into a plasmid \*vector\* (K30p). HTLV-I p24gag protein was detected in culture supernatants of human and rabbit T-cell and fibroblast lines transfected with these clones, at levels...

...than 24 months. Biologic characterization of this cell line revealed the presence of integrated HTLV-I provirus, spliced and unspliced mRNA transcripts, and typical extracellular \*type\* \*C\* \*retrovirus\* particles. As expected, these virus particles contained HTLV-I RNA and reverse transcriptase activity. The transfected cells also expressed surface major histocompatibility complex class II...

#### 7/3,K/4 (Item 4 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

(c) format only 2000 Dialog Corporation. All rts. reserv.

08052281 95056026

\*Type\* \*C\* \*retrovirus\* inactivation by human complement is determined by both the viral genome and the producer cell.

Takeuchi Y; Cosset FL; Lachmann PJ; Okada H; Weiss RA; Collins MK

Chester Beatty Laboratories, Institute of Cancer Research, London, United Kingdom.

Journal of virology (UNITED STATES) Dec 1994, 68 (12) p8001-7, ISSN 0022-538X Journal Code: KCV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

## \*Type\* \*C\* \*retrovirus\* inactivation by human complement is determined by both the viral genome and the producer cell.

The inactivation of type C retroviruses by human serum may be a considerable impediment to the use of \*retroviral\* \*vectors\* in vivo for gene therapy. Here we show that virus inactivation is dependent both on the virus and on the cell line used to produce...

#### 7/3,K/5 (Item 5 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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04371683 84167865

## [Regions of human genome containing analogs of oncogenes and retrovirus genes. I. A family of c-mos genes and unusual structure of ORA-gp5 locus]

Uchastki genoma cheloveka, soderzhashchie analogi onkogenov i genov retrovirusov. I. Semeistvo genov c-mos i neobychnaia struktura lokusa ORA-gp5.

Zabarovskii ER; Chumakov IM; Prasolov VS; Kiselev LL

Molekuliarnaia biologiia (USSR) Jan-Feb 1984, 18 (1) p60-82, ISSN 0026-8984 Journal Code: NGX

Languages: RUSSIAN Summary Languages: ENGLISH Document type: JOURNAL ARTICLE English Abstract

- ... the cloned region of the human genome designated as ORA-gp5 was constructed. The sequences of three different genetical elements v-mos-related oncogene, mammalian \*type\* \*C\* \*retrovirus\* and Alu type repeat are interspersed in this structure. The hypothesis concerning the probable origin of this locus has been proposed. The mosaical structure of
- ; Bacteriophage lambda--Genetics--GE; Chromosome Mapping; Cloning, Molecular; DNA--Analysis--AN; DNA--Genetics--GE; DNA, Viral--Analysis--AN; DNA, Viral--Genetics--GE; Genetic \*Vectors\*; Mice; Plasmids; Rats; Species Specificity

Chemical Name: DNA, Viral; (Genetic \*Vectors\*; (Plasmids; (DNA

## 7/3,K/6 (Item 1 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv.

06504993 BIOSIS NO.: 000037077009

MOLECULAR CLONING OF HIGHLY ONCOGENIC AMPHOTROPIC WILD MOUSE \*TYPE\* \*C\*

```
*RETROVIRUS* 10A1
AUTHOR: EHSANI A; PAL B K
AUTHOR ADDRESS: BIOL. SCI. DEP., CALIF. STATE POLYTECH. UNIV., POMONA, CA
  91768.
JOURNAL: 89TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, NEW
ORLEANS, LOUISIANA, USA, MAY 14-18, 1989. ABSTR ANNU MEET AM SOC MICROBIOL
89 (0). 1989. 392.
CODEN: ASMAC
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH
MOLECULAR CLONING OF HIGHLY ONCOGENIC AMPHOTROPIC WILD MOUSE *TYPE* *C*
 *RETROVIRUS* 10A1
DESCRIPTORS: ABSTRACT PLASMIC *VECTOR* LINEARIZATION RECOMBINANT PLASMID
RESTRICTION ENZYME SITE COLONY HYBRIDIZATION HIRT TECHNIQUE DNA EXTRACTION
?ds
        Items
               Description
Set
              (TYPE (W) C (W) RETROVIRUS)
S1
          483
S2
              (IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
         1616
              (VECTOR? OR (RETROVIRAL (W) VECTOR?))
S3
       212651
S4
                S1 AND S2 AND S3
S5
                S1 AND S2
            0
S6
              S1 AND S3
           14
S7
            6
                RD (unique items)
?s (5' (w) (end or leader))
>>>Warning: unmatched quote found
              57 5'
          560760 END
           18150 LEADER
              0 (5' (W) (END OR LEADER))
      S8
?s (5'-end) or (5'-leader)
      S9
              0 (5'-END) OR (5'-LEADER)
?s s2 and s3
            1616 S2
          212651 S3
             433 S2 AND S3
     S10
?s s10 and (REV or MSV or MHV or MEV or FMOV or AMLV or MEELV or SFFV or RASV or FLV or
 FSV or EFLV or SSV or GALV or BAEV)
             433 S10
          10908 REV
            4098 MSV
           2622
                 MHV
           11384
                 MEV
                 FMOV
               0
                 AMLV
                 MEELV
             586 SFFV
                 RASV
              83
             573
                 {	t FLV}
             244
                 FSV
                 EFLV
              1
             572
                 SSV
            364
                 GALV
             196 BAEV
                 S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR
     S11
                 MEELV OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR
                 GALV OR BAEV)
?rd
...completed examining records
              6 RD (unique items)
    S12
?t s12/all
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>>>'ALL' not allowed as format type

?t s12/3, k/all

12/3,K/1 (Item 1 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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10091945 98043300

Characterization f an internal ribosomal entry segment within the 5' leader of avian reticuloendotheliosis virus type A RNA and development of novel MLV-\*REV\*-based \*retroviral\* \*vectors\*.

Lopez-Lastra M; Gabus C; Darlix JL

LaboRetro, Unite de Virologie Humaine INSERM U412, Ecole Normale Superieure de Lyon, France.

Human gene therapy (UNITED STATES) Nov 1 1997, 8 (16) p1855-65, ISSN 1043-0342 Journal Code: A12

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Characterization of an internal ribosomal entry segment within the 5' leader of avian reticuloendotheliosis virus type A RNA and development of novel MLV-\*REV\*-based \*retroviral\* \*vectors\*.

(Koning et al., 1992), prompted us to undertake a search for new internal ribosome entry segment (\*IRES\*) of retroviral origin. Here we describe an \*IRES\* element within the 5' leader of avian reticuloendotheliosis virus type A (\*REV\*-A) genomic RNA. Data show that the \*REV\*-A 5' \*IRES\* element maps downstream of the packaging/dimerization (E/DLS) sequence (Watanabe and Temin, 1982; Darlix et al., 1992) and the minimal \*IRES\* sequence appears to be within a 129 nt fragment (nucleotides 452-580) of the 5' leader, immediately upstream of the gag AUG codon. The \*REV\*-A \*IRES\* has been successfully utilized in the construction of novel high titer MLV-based \*retroviral\* \*vectors\*, containing one or more \*IRES\* elements of retroviral origin. These retroviral constructs, which represent a starting point for the design of novel \*vectors\* suitable for gene therapy, are also of interest as a model system of internal translation initiation and its possible regulation during development, cancer, or virus...

Descriptors: Genetic \*Vectors\*--Genetics--GE; \*Leukemia Viruses, Murine --Genetics--GE; \*Reticuloendotheliosis Virus, Avian--Genetics--GE; \*RNA, Viral--Genetics--GE; \*Transfection; \*Translation, Genetic

Chemical Name: Kanamycin Kinase; (Alkaline Phosphatase; (Endopeptidases; (leader proteinase, foot-and-mouth disease virus; (Genetic \*Vectors\*; (Polyenes; (Recombinant Proteins; (RNA, recombinant; (RNA, Messenger; (RNA, Viral; (Sirolimus; (RNA)

#### 12/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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09850333 99121773

Inducible expression of herpes simplex virus thymidine kinase from a bicistronic HIV1 \*vector\*.

Marcello A; Giaretta I

Institute of Microbiology, University of Padova, Italy.

Research in virology (FRANCE) Nov-Dec 1998, 149 (6) p419-31, ISSN 0923-2516 Journal Code: R7E

Languages: ENGLISH

Document type: JOURNAL ARTICLE

### Inducible expression of herpes simplex virus thymidine kinase from a bicistronic HIV1 \*vector\*.

... elicited by the HIV1 transcription apparatus itself, offers a potentially useful approach for gene therapy of the acquired immunodeficiency syndrome. A replication-defective lentiviral HIV1 \*vector\* (HYIRES-TK) was designed to carry both the hygromycin (Hy) phosphotransferase gene for positive selection and the thymidine kinase (TK) gene of herpes simplex virus driven by the viral long terminal repeat (LTR). The \*internal\* \*ribosome\* \*entry\* \*site\* (\*IRES\*) from

encephalomyocarditis virus was placed between the two genes for their efficient simultaneous translation. Transient expression of active TK into transfected COS-1 cells was shown to be induced by Tat and \*Rev\* over a detectable basal level. By providing the missing viral proteins in trans, recombinant viruses were generated and used to transduce Jurkat cells. The Hy...

... in the presence of 10 microM ACV, a concentration non-toxic for the uninfected cells, resulted in increased killing of cells transduced with the HY-\*IRES\*-TK \*vector\*. These data indicate that two genes can be expressed from the viral LTR in the context of an HIV1 \*vector\*, with the aid of an \*IRES\* sequence. The expression is inducible by the HIV proteins Tat and \*Rev\* and it is possible to specifically kill infected cells with subtoxic concentrations of drug. To decrease the sensitivity of the transduced cells towards GCV, a variant \*vector\* expressing a truncated TK was constructed. The truncated version was expressed at levels similar to those of wild-type TK but induced sensitivity towards GCV...

Descriptors: Gene Expression Regulation, Enzymologic; \*Gene Expression Regulation, Viral; \*Genetic \*Vectors\*; \*Herpesvirus 1, Human--Enzymology --EN; \*HIV-1; \*Thymidine Kinase--Genetics--GE; Acyclovir--Pharmacology--PD; Cell Transformation, Viral; Cytotoxicity, Immunologic; COS Cells; Ganciclovir--Pharmacology--PD; Gene Products, \*rev\*--Metabolism--ME; Gene Products, tat--Metabolism--ME; Genes, Structural; Jurkat Cells

Chemical Name: Thymidine Kinase; (Gene Products, \*rev\*; (Gene Products, tat; (Genetic \*Vectors\*; (Acyclovir; (Ganciclovir

#### 12/3,K/3 (Item 3 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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09734688 99008312

Poor expression of MDR1 transgene in HeLa cells by bicistronic Moloney murine leukemia virus-based \*vector\*.

Zaboikin MM; Schuening FG

Bone Marrow Transplant Division, University of Wisconsin, Madison 53792, USA.

Human gene therapy (UNITED STATES) Oct 10 1998, 9 (15) p2263-75,

ISSN 1043-0342 Journal Code: Al2

Contract/Grant No.: DK48265, DK, NIDDK

Languages: ENGLISH

Document type: JOURNAL ARTICLE

### Poor expression of MDR1 transgene in HeLa cells by bicistronic Moloney murine leukemia virus-based \*vector\*.

... opportunity to increase the number of transduced marrow cells, expressing the therapeutic gene, by in vivo selection for MDR1. We have used an Lg-MDR1-\*IRES\*-neo (LgMIN) \*retroviral\* \*vector\*, containing MDR1 and neo genes, separated by the EMCV \*IRES\*. Human HeLa or canine CTAC cells, transduced with \*GALV\* env pseudotyped LgMIN at an MOI of less than 0.01 to ensure 1 proviral copy/genome, were selected with either G418 for neo expression...

... resistance to colchicine and a 2-fold higher resistance to Taxol compared with nontransduced cells. About 23% of the transduced cell population did not express \*vector\* -derived P-glycoprotein (P-gp) as detected by anti-human P-gp MAb MRK-16. This could explain the difference in viral titers obtained on CTAC cells but not that obtained on HeLa cells. The \*vector\* -mediated increase in expression of P-gp was about 20-fold higher in CTAC cells as compared with HeLa cells. These results indicated suppression of expression of \*vector\* -derived MDR1 in HeLa cells, in contrast with CTAC cells. To investigate further the possible reasons for this difference, genomic DNA was isolated from the...

... concentration of G418 (3 mg/ml), the aberrant forms were detected at an increased frequency of about 50% of colonies tested. These results indicate that \*vector\*-derived MDR1 is a poor selective marker in HeLa cells but not

in CTAC cells and that deletions, which inactivated the MDR1 gene in a bicistronic Mo-MuLV \*vector\*, may provide an advantage for expression of the second transgene in HeLa cells.

Descriptors: Gene Expression; \*Genes, MDR--Genetics--GE; \*Genetic \*Vectors\*; \*Moloney Leukemia Virus--Genetics--GE; \*Transgenes Chemical Name: Genetic \*Vectors\*; (P-Glycoprotein

12/3,K/4 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

11339294 BIOSIS NO.: 199800120626

Inhibition of HIV-1 replication by combined expression of gag dominant negative mutant and a human ribonuclease in a tightly controlled HIV-1 inducible \*vector\*.

AUTHOR: Cara A; Rybak S M; Newton D L; Crowley R; Rottschafer S E; Gusella M S Jr Reitzand G L(a)

AUTHOR ADDRESS: (a) Lab. Biochem. Physiol., Build 567, Room 152, Frederick NCI-Frederick Cancer Res. Dev. Center, Fr\*\*USA 1998

JOURNAL: Gene Therapy 5 (1):p65-75 Jan., 1998

ISSN: 0969-7128

DESCRIPTORS:

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English

Inhibition of HIV-1 replication by combined expression of gag dominant negative mutant and a human ribonuclease in a tightly controlled HIV-1 inducible \*vector\*.

ABSTRACT: An HIV-1-based expression \*vector\* has been constructed that produces protective genes tightly regulated by HIV-1 Tat and \*Rev\* proteins. The \*vector\* contains either a single protective gene (HIV-1 gag dominant negative mutant (delta-gag)) or a combination of two different protective genes (delta-gag and...

...dicistronic mRNA. After stable transfection of CEM T cells and following challenge with HIV-1, viral production was completely inhibited in cells transduced with the \*vector\* producing both delta-gag and EDN and delayed in cells producing delta-gag alone. In addition, contransfection of HeLa-Tat cells with an infectious HIV-1 molecular clone and either protective \*vector\* demonstrated that the HV-1 packaging signals present in the constructs were functional and allowed the efficient assembly of the protective RNAs into HIV-1...

CHEMICALS & BIOCHEMICALS: ...\*Rev\* proteins
MISCELLANEOUS TERMS: ...human immunodeficiency virus-inducible \*vector\*
; \*internal\* \*ribosome\* \*entry\* \*site\*;

12/3,K/5 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

10817696 BIOSIS NO.: 199799438841

Generation of helper-free SIV-based \*vectors\*.

AUTHOR: Kim S S(a); Kothari N; Fan H

AUTHOR ADDRESS: (a) Dep. Molecular Biol. and Biochemistry, Univ. California at Irvine, Irvine, CA\*\*USA
1997

JOURNAL: Journal of Investigative Medicine 45 (1):p85A 1997 CONFERENCE/MEETING: Meeting of the American Federation for Medical Research, Western Regional Carmel, California, USA February 5-8, 1997 ISSN: 1081-5589

RECORD TYPE: Citation

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Generation of helper-free SIV-based *vectors*.
  MISCELLANEOUS TERMS: ...HELPER-FREE SIMIAN IMMUNODEFICIENCY VIRUS-BASED
    *VECTORS*; ...
...HELPER-FREE SIV-BASED *VECTORS*; ...
...PNK1 *VECTOR* PLASMID...
...*REV* RESPONSE ELEMENT...
...VIRUS *INTERNAL* *RIBOSOME* *ENTRY* *SITE*;
 12/3,K/6
              (Item 1 from file: 73)
DIALOG(R) File 73: EMBASE
(c) 2000 Elsevier Science B.V. All rts. reserv.
10760095
             EMBASE No: 2000238995
 Type and position of promoter elements in *retroviral* *vectors* have
substantial effects on the expression level of an enhanced green
fluorescent protein reporter gene
  Flasshove M.; Bardenheuer W.; Schneider A.; Hirsch G.; Bach P.; Bury C.;
Moritz T.; Seeber S.; Opalka B.
  M. Flasshove, Department of Internal Medicine, West German Cancer Center,
  University of Essen Medical School, Hufelandstrasse 55, 45122 Essen
  Germany
  AUTHOR EMAIL: michael.flasshove@uni-essen.de
  Journal of Cancer Research and Clinical Oncology ( J. CANCER RES. CLIN.
  ONCOL.) (Germany) 2000, 126/7 (391-399)
  CODEN: JCROD ISSN: 0171-5216
  DOCUMENT TYPE: Journal; Article
  LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
  NUMBER OF REFERENCES: 43
```

## Type and position of promoter elements in \*retroviral\* \*vectors\* have substantial effects on the expression level of an enhanced green fluorescent protein reporter gene

Purpose: Although gene transfer with retrovital \*vectors\* has already been applied to patients as part of clinical protocols, low expression of transgenes in target cells still remains a problem. Therefore, we compared various \*retroviral\* \*vectors\* using different promoters and backbones for expression of the enhanced green fluorescent protein (EGFP) reporter gene in fibroblasts and CD34sup + cells. Methods: The N2A \*retroviral\* \*vector\* was used to test expression from the herpes simplex virus thymidine kinase promoter (\*vector\* N2A-TKEGFP), a human phosphoglycerate kinase promoter ( \*vector\* N2A- PGK-EGFP), and the SV40 promoter (\*vector\* N2A-SV-EGFP). Additional constructs used the spleen focus-forming virus (\*SFFV\*) long terminal repeat (LTR) as promoter and expressed EGFP alone (\*vector\* SFbeta1-EGFP) or EGFP and a downstream (\*vector\* SFbeta1EGFP-\*IRES\*) or upstream (\*vector\* SFbetal-\*IRES\*-EGFP) internal ribosomal entry site. Results: For NIH 3T3 cells the fluorescence- activated cell sorting analysis revealed that the most active internal promoter was the SV40 promoter in the \*vector\* N2A-SV-EGFP (mean fluorescence intensity, MFI, 66.7 + - 0.4), followed by N2A-PGK-EGFP (26.3 + - 1.8 MFI), and N2A-TK-EGFP (4.8 +/- 0.1 MFI). Expression from the SFbetal-EGFP \*vector\* (82.6 +/- 6.7 +)MFI) and the SFbeta1-EGFP-\*IRES\* \*vector\* (102.8 +/- 6.2 MFI) was higher than from SFbetal-\*IRES\*-EGFP \*vector\* (15.5 +/- 1.8 MFI). In human CD34-positive cells, the EGFP expression from all \*vectors\* was considerably lower than in fibroblasts with the SFbetal-EGFP \*vector\* still being four- to fivefold more active than the internal promoters tested. Conclusion: The \*SFFV\* LTR seems to allow a high expression of transgenes, as long as the transgene is not expressed downstream of an internal ribosomal entry site. Internal... MEDICAL DESCRIPTORS: \*virus \*vector\*; \*cancer cell; \*gene therapy

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Set
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 S1
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S6
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                S1 AND S3
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S9
S10
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          433
S11
                S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR MEELV
             OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR GALV OR BAEV)
S12
                RD (unique items)
?s s10 and (reticuloendotheliosis (w) virus)
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            4605 RETICULOENDOTHELIOSIS
          990756 VIRUS
            1077 RETICULOENDOTHELIOSIS (W) VIRUS
               6 S10 AND (RETICULOENDOTHELIOSIS (W) VIRUS)
     S13
?rd
...completed examining records .
               3 RD (unique items)
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t s14/3, k/al1
              (Item 1 from file: 155)
 14/3, K/1
DIALOG(R) File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.
10091945
           98043300
 Characterization of an internal ribosomal entry segment within the 5'
of novel MLV-REV-based *retroviral* *vectors*.
```

leader of avian \*reticuloendotheliosis\* \*virus\* type A RNA and development

Lopez-Lastra M; Gabus C; Darlix JL

Unite de Virologie Humaine INSERM U412, Ecole Normale LaboRetro, Superieure de Lyon, France.

Human gene therapy (UNITED STATES) Nov 1 1997, 8 (16) p1855-65, ISSN Journal Code: A12 1043-0342

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Characterization of an internal ribosomal entry segment within the 5' leader of avian \*reticuloendotheliosis\* \*virus\* type A RNA and development of novel MLV-REV-based \*retroviral\* \*vectors\*.

... al., 1995b). These data, together with structural homology studies (Koning et al., 1992), prompted us to undertake a search for new internal ribosome entry segment (\*IRES\*) of retroviral origin. Here we describe an \*IRES\* element within the 5' leader of avian \*reticuloendotheliosis\* \*virus\* type A (REV-A) genomic RNA. Data show that the REV-A 5' \*IRES\* element maps downstream of the packaging/dimerization (E/DLS) sequence (Watanabe and Temin, 1982; Darlix et al., 1992) and the minimal \*IRES\* sequence appears to be within a 129 nt fragment (nucleotides 452-580) of the 5' leader, immediately upstream of the gag AUG codon. The REV-A \*IRES\* has been successfully utilized in the construction of novel high titer MLV-based \*retroviral\* \*vectors\*, containing one or more \*IRES\* elements of retroviral origin. These retroviral constructs, which represent a starting point for the design of novel \*vectors\* suitable for gene therapy, are also of interest as a model system of internal translation initiation and its possible regulation during development, cancer, or virus...

Descriptors: Genetic \*Vectors\*--Genetics--GE; \*Leukemia Viruses, Murine --Genetics--GE; \*\*Reticuloendotheliosis\* \*Virus\*, Avian--Genetics--GE; \*RNA, Viral--Genetics--GE; \*Transfection; \*Translation, Genetic Chemical Name: Kanamycin Kinase; (Alkaline Phosphatase; (Endopeptidases; (leader proteinase, foot-and-mouth disease virus; (Genetic \*Vectors\*;

(Polyenes; (Recombinant Proteins; (RNA, recombinant; (RNA, Messenger; (RNA, Viral; (Sirolimus; (RNA

#### 14/3,K/2 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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10057708 99412355

Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of \*retroviral\* \*vectors\*.

Lopez-Lastra M; Ulrici S; Gabus C; Darlix JL

Labo Retro, Unite de Virologie Humaine-U412, Institut National de la Sante et de la Recherche Medicale, Ecole Normale Superieure de Lyon, 69364 Lyon cedex 07, France.

Journal of virology (UNITED STATES) Oct 1999 73 (10) p8393-402, ISSN 0022-538X Journal Code: KCV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

# Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of \*retroviral\* \*vectors\*.

... in cell culture. In this study, we addressed whether the 5' region of VL30m could replace the 5' leader of MoMLV functionally in a recombinant \*vector\* construct. Our data confirm that the putative packaging sequence of VL30 is located within the 5' region (nucleotides 362 to 1149 with respect to the cap structure) and that it can replace the packaging sequence of MoMLV. We also show that VL30m contains an internal ribosome entry segment (\*IRES\*) in the 5' region, as do MoMLV, Friend murine virus, leukemia Harvey murine sarcoma virus, and avian \*reticuloendotheliosis\* \*virus\* type A. Our data show that both the packaging and \*IRES\* functions of the 5' region of VL30m RNA can be efficiently used to develop retrotransposon-based \*vectors\*.

Descriptors: Genetic \*Vectors\*; \*Retroelements--Genetics--GE; \*Retroviridae--Genetics--GE; \*RNA, Viral--Genetics--GE

Chemical Name: Genetic \*Vectors\*; (Retroelements; (RNA, Viral

#### 14/3,K/3 (Item 3 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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07378154 92124741

## A spleen necrosis virus-based \*retroviral\* \*vector\* which expresses two genes from a dicistronic mRNA.

Koo HM; Brown AM; Kaufman RJ; Prorock CM; Ron Y; Dougherty JP

Department of Molecular Genetics and Microbiology, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, Piscataway 08854-5635.

Virology (UNITED STATES) Feb 1992, 186 (2) p669-75, ISSN 0042-6822

Journal Code: XEA

Contract/Grant No.: CA50777, CA, NCI; CA16599, CA, NCI; CA47207, CA, NCI

Languages: ENGLISH

- Document type: JOURNAL ARTICLE

## A spleen necrosis virus-based \*retroviral\* \*vector\* which expresses two genes from a dicistronic mRNA.

We have investigated a novel strategy for coexpressing two genes from a \*retroviral\* \*vector\*. The 5' nontranslated leader region of at least some picornavirus RNAs contains a sequence that can act as an \*internal\* \*ribosome\* \*entry\* \*site\* allowing initiation of translation at a downstream AUG codon in a 5' cap-independent manner. To investigate whether such a sequence can function in the context of a \*retroviral\* \*vector\*, we constructed a spleen necrosis virus-based \*vector\* carrying two selectable

marker genes separated by the leader region of encephalomyocarditis virus. This \*vector\* was genetically stable and efficiently expressed both markers from a single dicistronic transcript. Since the expression of two genes by other strategies in \*retroviral\* \*vectors\* can often be problematic, these results offer a promising new approach for the design of "double gene" \*retroviral\* \*vectors\*. Descriptors: Genes, Viral; \*Genetic \*Vectors\*; \*\*Reticuloendotheliosis\* \*Virus\*, Avian--Genetics--GE; \*RNA, Messenger--Genetics--GE; \*RNA, Viral --Genetics--GE ?ds Set Description Items S1 483 (TYPE (W) C (W) RETROVIRUS) **S2** (IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE)) 1616 212651 (VECTOR? OR (RETROVIRAL (W) VECTOR?)) S3 **S4** S1 AND S2 AND S3 **S**5 S1 AND S2 **S**6 S1 AND S3 14 **S**7 RD (unique items) 6 S8 (5' (W) (END OR LEADER)) 0 S9 0 (5'-END) OR (5'-LEADER) S10 S2 AND S3 433 S11 S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR MEELV 11 OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR GALV OR BAEV) S12 RD (unique items) S13 S10 AND (RETICULOENDOTHELIOSIS (W) VIRUS) 6 S14 RD (unique items) PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES ?s s10 and (VL30-type (w) retrotransposon) 433 510 0 VL30-TYPE 2437 RETROTRANSPOSON 0 VL30-TYPE (W) RETROTRANSPOSON 0 S10 AND (VL30-TYPE (W) RETROTRANSPOSON) S15 ?s s10 and (VL30 (w) retrotransposon) 433 S10 316 VL30 2437 RETROTRANSPOSON 31 VL30 (W) RETROTRANSPOSON S16 S10 AND (VL30 (W) RETROTRANSPOSON) ?rd ... completed examining records 1 RD (unique items) S17 ?t s17/3, k/all 17/3,K/1 (Item 1 from file: 155) DIALOG(R) File 155:MEDLINE(R) (c) format only 2000 Dialog Corporation. All rts. reserv. 10057708 99412355 Identification of an internal ribosome entry segment in the 5' region of the mouse \*VL30\* \*retrotransposon\* and its use in the development of \*retroviral\* \*vectors\*. Lopez-Lastra M; Ulrici S; Gabus C; Darlix JL Labo Retro, Unite de Virologie Humaine-U412, Institut National de la Sante et de la Recherche Medicale, Ecole Normale Superieure de Lyon, 69364 Lyon cedex 07, France. Journal of virology (UNITED STATES) Oct 1999, 73 (10) p8393-402, ISSN 0022-538X Journal Code: KCV Languages: ENGLISH

1 1

Identification of an internal ribosome entry segment in the 5' region of the mouse \*VL30\* \*retrotransposon\* and its use in the development of \*retroviral\* \*vectors\*.

Document type: JOURNAL ARTICLE

... in cell culture. In this study, we addressed whether the 5' region of VL30m could replace the 5' leader of MoMLV functionally in a recombinant \*vector\* construct. Our data confirm that the putative packaging sequence of VL30 is located within the 5' region (nucleotides 362 to 1149 with respect to the cap structure) and that it can replace the packaging sequence of MoMLV. We also show that VL30m contains an internal ribosome entry segment (\*IRES\*) in the 5' region, as do MoMLV, Friend murine virus, leukemia Harvey murine sarcoma virus, and avian reticuloendotheliosis virus type A. Our data show that both the packaging and \*IRES\* functions of the 5' region of VL30m RNA can be efficiently used to develop retrotransposon-based \*vectors\*. Descriptors: Genetic \*Vectors\*; \*Retroelements--Genetics--GE; \*Retroviridae--Genetics--GE; \*RNA, Viral--Genetics--GE Chemical Name: Genetic \*Vectors\*; (Retroelements; (RNA, Viral ?ds

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S9
                (5'-END) OR (5'-LEADER)
                S2 AND S3
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S11
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S12
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.S13
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S14
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S16
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S17
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           TYMNET
   $25.87 Estimated cost this search
   $26.28 Estimated total session cost 2.582 DialUnits
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### Status: Signed Off. (30 minutes)